

REMARKS

This is in response to the Office Action mailed on January 9, 2004, in which claims 1-6 and 21-23 are allowed, claims 7-10, 12-17 and 20 are rejected, and claims 11, 18 and 19 are objected to.

Claim 7-10, 12-16, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams et al. (U.S. Patent No. 6,466,412) in view of Takeuchi et al. (U.S. Patent No. 6,465,934). Claim 17, which depends from claim 7, has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams et al. and Takeuchi et al., and further in view of applicant admitted prior art.

The examiner bears the initial burden of factually supporting a *prima facie* conclusion of obviousness. MPEP 2142. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to modify the reference or to combine reference teachings. MPEP 2143.01. Second, there must be a reasonable expectation of success. MPEP 2143.02. Third, to establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCAP 1974); MPEP 2143.03.

Claim 7 includes a beam structure which "limits deflection of the rotor out of a plane defined by the microactuator." The beam structure of claim 7 includes "a first beam pair element aligned with a width of the rotor and a second beam pair element aligned with a length and the width of the rotor." Takeuchi et al. does not disclose the beam structure of claim 7.

In Takeuchi et al., the fixing plate 72 is supported by diaphragms 73A, 73B, 73C and 73D. As explained in the Office Action dated January, 9, 2004, for FIG. 21(d), diaphragm elements 73B and 73C align with a "width of the rotor." Therefore, it is presumed that the X axis defines the direction of the width. The Office Action further states that diaphragm elements 73A + 74A and 73D + 74B align with a "length and the width of the rotor." Therefore, it is presumed that the Y axis defines the direction of the length. Although 74A and 74B do extend along the Y axis or a

longitudinal axis, the diaphragm elements 73A + 74A and 73D + 74B do not extend along the length of the fixing plate 72. Elements 74A and 74B are not "aligned" with a length of the rotor because elements 74A and 74B do not extend or even a partially extend near or adjacent to the fixing plate 72. Therefore, a combination of Adams et al. with Takeuchi et al. does not teach, suggest, or disclose each and every element of claim 7, as required to establish a *prima facie* case of obviousness.

Claim 7 requires "a slider supporting a transducing head" and "a rotor attached to the slider." The beam structure of claim 7 permits "movement of the rotor." Therefore, movement of the rotor causes the slider and the transducing head, supported by the slider, to move because the slider is attached to the rotor.

Takeuchi et al. discloses in FIG. 12 a piezoelectric/electroresistive device 11A fixed to a slider 27. The magnetic head 13 is disclosed as being "set to the front end of the connection-fixing plate 36 and it is possible to move the head 13 by a predetermined displacement amount by driving the piezoelectric element 35." (Col. 14, line 10-14). Takeuchi et al. only discloses a magnetic head 13 being placed on the fixing plate such that the magnetic head is moveable with respect to a fixed slider. Takeuchi et al. and Adams et al. do not teach, suggest, or disclose placing the slider on the fixing plate such that the slider is movable. Therefore, in FIG. 21(d), only the magnetic head would be placed on the fixing plate 72, which is the moving part, with the substrate 70 defining the slider. The substrate 70 or slider, is not "attached" to the fixing plate 72 such that the slider moves (because the slider is attached to the rotor) as is required by claim 7. Instead, the substrate 70 or slider is stationary with respect to any movement caused by the fixing plate 72.

In the Office Action dated January 9, 2004, it is stated that a combination of Takeuchi et al. with Adams et al. would be made where "the slider is attached on the rotor." However, Takeuchi et al. does not disclose attaching the slider on the fixing plate 72, it only discloses attaching the magnetic head to the fixing plate. (See FIG. 12). A combination of Adams et al. and Takeuchi et al. does not teach, suggest, or disclose a slider supporting a transducing head with a rotor attached to the slider where movement of the rotor causes movement of the slider and transducing head

because the slider is "attached" to the rotor. The third element of a *prima facie* case of obviousness has not been met with respect to this element.

Even with a combination of Adams et al. with Takeuchi et al. not all of the elements of claim 7 are disclosed. Neither reference discloses the claimed beam structure, and neither reference discloses the microactuator with a rotor attached to the slider, which supports a transducing head. Therefore, a *prima facie* case of obviousness has not been established and claim 7 is allowable.

Claims 8-10 and 12-17 depend from claim 7 and include all of the limitations of claim 7. Objected claims 11, 18 and 19 also depend from claim 7 and include all of the limitations of claim 7. Because claim 7 is not made obvious by a combination of Adams et al. with Takeuchi et al., neither are claims 8-19. Therefore, claims 8-19 are allowable.

Claim 20 requires a microactuator having means for operatively connecting the rotor to the stator, while "limiting motion of the slider longitudinally." When applicant invokes 35 U.S.C. § 112, sixth paragraph by using means for language, the examiner must "give claims their broadest reasonable interpretation, in light of and consistent with the written description of the invention in the application." MPEP 2181.

The disclosure clearly shows in FIG. 3-7 the claimed means for operatively connecting the rotor to the stator. Further, FIG. 7 shows deflection limiters 66 and 68 "to constrain the deflection of beam structure 46." (p. 8, line 22-23). The deflection limiters 66 and 68 limit the motion of the slider longitudinally.

Takeuchi et al. does not disclose deflection limiters as the corresponding structure disclosed for operatively connecting the rotor to the stator while limiting motion of the slider longitudinally. Looking to FIG. 21(d) of Takeuchi et al., there is nothing disclosed similar to the deflection limiters 66 and 68 to limit motion of the fixing plate 72 from a force in the X or Y direction. Therefore, even with a combination of Adams et al. with Takeuchi et al., not all of the claimed limitations are taught, suggested, or disclosed. Claim 20 is therefore not made obvious by a combination of Adams et al. with Takeuchi et al.

Claim 20, like claim 7, requires "a slider supporting a transducing head" and "a rotor attached to the slider." Further, claim 20 includes a microactuator with "means for operatively connecting the rotor to the stator so as to permit movement of the rotor with respect to the stator," such that movement of the rotor causes movement of the slider because the slider is attached to the rotor.

FIG. 3-5 shows the transducing head 34 attached to slider 12. Actuation causes "slider 12 to move in the direction of arrows 36 with respect to stator 38, finely positioning the transducing head 34 carried by slider 12 over a track of a disc." (p. 4, line 25-27). Takeuchi et al. does not disclose such a structure where actuation causes movement of the rotor, which is attached to the slider, which carries the transducing head. Instead, Takeuchi et al. discloses a magnetic head 13 attached to fixing plate 36 (FIG. 12), where the fixing plate 36 is attached to the slider 27. Taking that disclosure and applying it to FIG 21(d) of Takeuchi et al., the magnetic head 13 is attached to fixing plate 72 with the slider being the substrate 70. Therefore, the substrate 70 is stationary with respect to the fixing plate 72 and is not moving because it is not attached to the rotor as required by claim 20. Because a combination of Adams et al. with Takeuchi et al. does not teach, suggest or disclose each and every element of claim 20, claim 20 is allowable.

With respect to the reasons for allowance of claim 1, applicant respectfully points out that the means for limiting deflection of the rotor out of a plane defined by the microactuator frame is also shown in FIG. 6 and FIG. 7.

The above remarks place all pending claims in allowable form. Applicant respectfully requests a notice of allowance for all pending claims 1-23.

First Named Inventor: Peter Crane

Application No.: 09/808,843

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**INTERVIEW SUMMARY**

On January 5, 2004, Applicant's representative, Gayle A. Bush (Reg. No. 52,677), contacted Examiner Tianjie Chen regarding Application Number 09/808,843 to report that the Examiner had not treated pending claims 21-23 in the December 22, 2003 Office Action. Examiner Chen agreed to review the case and to issue a substitute Office Action addressing all of the pending claims 1-23.

**RECEIVED**

Respectfully submitted,

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KINNEY & LANGE, P.A.

**Technology Center 2600**

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By: Gayle Bush  
Gayle A. Bush, Reg. No. 52,677  
THE KINNEY & LANGE BUILDING  
312 South Third Street  
Minneapolis, MN 55415-1002  
Telephone: (612) 339-1863  
Fax: (612) 339-6580

GAB:TDA:amh